

# Foreign Direct Investment in Tourism and Economic Growth: Panel Data of OECD Countries

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**Abstract**— It is debated whether foreign direct investment (FDI) exerts significant influence on economic growth. This paper aims to examine the effect of FDI in tourism on economic growth. The particular focus on tourism provides insight on possible contradictory process that previous literature have captured. This paper analyzes panel data of 18 OECD countries from 2005 to 2012 using system GMM developed by Arellano and Bover (1995) and Blundell and Bond (1998). The results show that FDI in tourism industry does not significantly affect economic growth. Furthermore, the absorptive capacities, human capital and trade openness, that are proven to work for aggregate FDI do not work for tourism-related FDI. Therefore governments are advised to take precaution against the common wisdom that FDI (in aggregate) contributes to economic growth. As this paper suggests, tourism industry, among other sectors, presents itself as an exception.

**Keywords**— economic growth, FDI, foreign direct investment, system GMM, tourism

## I. INTRODUCTION

Despite the massive amount of literature in the field of foreign direct investment (FDI), FDI in the tourism industry has not been widely discussed. FDI is really important and crucial for developing countries since these countries are the ones that lack capital and therefore require investment from other countries to grow. Another important sector for developing countries is tourism. These countries often have unique, extensive, and breathtaking natural beauty. Therefore by utilizing these natural phenomena as well as supporting it with the right infrastructure and care, it will certainly help developing countries nourish their economy. Unfortunately developing countries lack capital, managerial skills, or both, in utilizing the resources they have into valuable tourist attractions. FDI in the tourism sector is very important not only because it brings financial resources but also technology and human capital that are crucial for the initial stage of development of these untapped tourist

sites. The locals can then maintain and further improve these destinations in the future. In the literature, this is referred to as technology and knowledge spillover. However, it is important to make sure that recipient countries benefit from it. If they do then the government should encourage more inward FDI in the tourism sector. If they do not, then the resources could be located elsewhere.

Due to these reasons, it is regrettable that FDI in the tourism sector has not received the attention it deserves. The literature has discussed this topic, however, most of them do not perform the deep quantitative analysis the question demands. Many researchers used time series data to analyze only one specific country. In the case where multiple countries were examined, the impact of FDI in tourism sector on host countries' economy are often neglected. This paper is going to analyze the effect of FDI in tourism on the economy of the recipient countries. The results of this research are going to help governments, especially the ministry of tourism, plan their strategies in order to develop their nation's tourism industry. This research employed quantitative approach by using panel data from 18 OECD countries from 2005 to 2012 as this dataset is the most comprehensive to date. The method used to analyze the data is the System Generalized Method of Moments (GMM) estimator. There is very little research in this area which have used GMM estimator although it is quite apparent that endogeneity issue exists in this case.

To conclude, 1) though research has been done on the effect of FDI on economic growth, the effect of FDI in tourism industry on economic growth is not extensively examined, 2) though research has been done on the effect of tourism industry on economic growth (tourism-led growth hypothesis), the effect of FDI in tourism industry on economic growth is less explored. Therefore this research is filling the gap in the literature. Other gaps include lack of in-depth quantitative research on the impact of FDI in tourism industry on the host country's economy, few if not no research which employed system

GMM estimator despite possible endogeneity issue, and the lack of panel data analysis encompassing many countries as previous research mainly focused on individual countries.

This paper started with an introduction which is followed by a literature review. After previous literature has been discussed, the paper discusses the materials and methods that are used in this research. The following section after that presents the results and discussion. Last but not least, the paper is concluded and closed with the limitations of the current research as well as recommendations for future research. It is hoped that this research is not only going to enrich the literature in this area but also has practical contributions for the governments. Ministry of Tourism along with the local tourism authorities should utilize empirical research as foundations of their master plan in improving their countries' tourism industry and subsequently the whole economy of the country.

## II. LITERATURE REVIEW

FDI has been discussed for years. Its relationship with economic growth was explored extensively in the literature with many conflicting empirical results. There are many research which suggest that FDI significantly affects economic growth in a positive way [1-10]. On the other hand, other literature proved that the effect of FDI on economic growth is insignificant [11-16]. Many literature suggests that FDI exerts significant positive effect on economic growth when certain prerequisites have been fulfilled by the host country or the effect becomes stronger when these factors are strong enough in the host country. These variables vary from research to research but the most common factors include human capital [17-22], financial market development [18, 23-27] and trade openness [18, 20, 26].

It can be seen that literature in the area of FDI has discussed the relationship between FDI and economic growth for a long time. Unfortunately, there are no definitive results until now as many empirical studies suggest conflicting outcomes. The research have also taken into account a wide variety of data sets, starting from an individual country, developing countries, developed countries, countries in certain region and even countries all over the world. Cross-country analysis went as far as encompassing 140 countries over 39 years. This research was published quite recently [26]. They concluded that FDI significantly affects economic growth in a positive manner regardless of whether the recipient is a developing or developed country. They also stated that the variation does not occur within a country but instead between regions. Moreover, concurrent FDI is the one which affects economic growth instead of past FDI. Last but certainly not least, they also concluded that the

supporting variables inducing the positive effect of FDI on economic growth are trade openness and financial development rather than human capital. This is surprising as many researchers have proven human capital to be an important factor in the FDI-growth nexus. Unfortunately, despite comprehensive data analyses, in the end, the results cannot be generalized to all countries and all sectors. That is why this nexus has been a long-standing debate in the academic world.

In spite of country characteristic, the literature has also proven that the impact of FDI on economic growth depends on the sector in which the investment is put into. A rather comprehensive research has been done on the importance of sector in the relationship between FDI and economic growth [28]. The dataset included 47 countries over almost 2 decades from 1981 to 1999. The results showed that the aggregate effect of FDI on economic growth is not clear. The 3 different sectors which were analyzed are primary, manufacturing and service sectors. Interestingly the results of FDI-growth nexus differed in all 3 sectors, whereby it was negative for primary sector, positive for the manufacturing sector and ambiguous for the service sector. These results encourage the need for further investigation on the effect of FDI in the service sector on economic growth, in this case, FDI in the tourism industry. A similar case was found in the case of China and Vietnam [29]. They arrived at the conclusion that FDI is positively associated with economic growth only for the manufacturing industry in China and only for manufacturing and oil and gas sector in Vietnam. This shows that FDI does not necessarily benefit growth in all sectors of a country. Another research carried out in Indonesia proved that FDI only positively affects growth in the construction sector [30]. They even found that FDI brought a negative impact on growth in mining and quarrying sector. This is important to note since the government should not blindly encourage FDI in any sector of their economy. Another research used Asian countries data set [31]. She came to the conclusion that the positive effect of FDI on growth was only significant in the manufacturing sector but not in non-manufacturing sectors.

Therefore it is apparent that further research should be carried out on the effect of FDI on economic growth in sectors other than manufacturing, especially the service sector. Tourism industry as a part of the service sector has played an important role in many countries. Tourism is also an industry where both developed and developing countries can play an active role in. This is because unlike the manufacturing industry, tourism industry does not rely heavily on complex technology. Developing countries are not necessarily behind developed countries in the case of tourism since many tourists are attracted to natural beauty and cultural experience. OECD countries encompass both

developed as well as developing countries which provide a broad view of the effect of FDI on growth in tourism industry regardless of the level of economic development of the host country. Therefore this research provides significant insight for academicians and policymakers.

Literature which focused on FDI in the tourism industry is far less profound than that of the aggregate FDI. The research in tourism-related FDI used individual country or less number of countries in the analysis and also used a rather limited number of statistical methods for data analysis compared to research on aggregate effect of FDI. The number of research is also far less. A research concluded that there is two-way long-run causality between the development of tourism and FDI in the tourism-related industry, but there is no short-run relationship between the two [32]. The data set is taken from 20 developing countries. There were also research conducted in Croatia [33-34]. One proved the existence of both short-run and long-run relationship between tourism related FDI and gross value added [34]. Another one showed that there is unidirectional short-run causality from tourism-related FDI to international tourists arrival [33]. Furthermore, there was a study which specifically studied one province in Indonesia called Sumatra Utara or North Sumatra [35]. The result of their research showed that FDI in tourism does positively affect economic growth in that province. On the other hand, cross-country study which used data from 7 developed countries found that tourism development affects FDI instead of the other way around [36].

It can be seen that literature on tourism-related FDI focused on either developing countries or developed countries. As it has been mentioned before, the tourism industry is less dependent on the economic development of the host country compare to manufacturing industry, thus this research takes into account OECD countries which consist of both developed and developing countries. The research also takes into account human capital and trade openness which are seen as important absorptive capacities in the case of aggregate FDI. This is done to find out whether these two variables are also important in the specific case of FDI in the tourism industry. This is also a gap in the literature as previous research tend to analyze only FDI in the tourism industry and tourism development indicators without taking into account the other supporting variables.

Based on the literature review above, this research is going to fill the gap in the literature by analyzing the relationship between tourism related FDI and economic growth as well as tourism-related FDI and tourism development indicator, taking into account supporting variables (human capital and trade openness) in both developed and developing countries. This research helps to improve research in tourism-related FDI so that

researches in this area can gradually catch up to research on aggregate FDI. The methodology that is implemented in this research is also different than those that have been used in similar previous research. The research methodology is going to be explained in more details in the next section of this paper.

### III. MATERIALS AND METHODS

There are several research methodologies which are commonly used in research of tourism-related FDI. These common methodologies are explained briefly before the methodology used in this research is introduced. These methods are frequently used in empirical or quantitative research in this area. The first is Granger Causality. Since most research in this field focused on finding out whether there is any causal relationship between FDI in tourism and economic growth or tourism development, thus many researchers used Granger Causality. Other than that, cointegration tests were also done alongside Granger Causality. The combination of these 2 methods has been used by many researchers in this area [32, 33-34, 37-40].

Many of these scholars who used the above-mentioned methodologies went through 3 steps. The first step is to test for stationarity or unit root test. The most common test used by researchers is the augmented Dickey-Fuller (ADF) test [33-34, 36-37, 40-41]. After making sure that the variables are stationary at least at the same level, the next step is to perform the cointegration test. Some researchers used Johansen cointegration test [33-34, 36, 41] or Pedroni [32, 36]. Last but not least is the Granger Causality test which determines whether there is a uni-directional or bi-directional relationship between the variables as well as short-run or long-run relationship.

Those are the common methods which are used by scholars in the area of tourism-related FDI. These tests are carried out for both time series and panel data, although more frequently used for time series data. There are certainly many qualitative research in this area as well. Most of these qualitative research focused on reviewing the literature. The method that is used in this research is different, which is the Generalized Method of Moments (GMM). GMM has previously been used in similar research which focused on Japan's inward FDI [42]. This is most probably the only research in tourism-related FDI which adopted GMM. Although the research methodology used is the same as the aforementioned research, however the variables being researched are different. The variables used were FDI as the dependent variable and the number of international tourist arrival as the main independent variable [42]. Thus the empirical research was carried out to find out whether more tourists lead to more inward FDI. This is the opposite of the objective of this research since this research is eager to find out whether more FDI in tourism industry leads to

economic growth or better tourism development of the recipient country. The results of this research impose different policy implications compared to the results drawn from the previous research [42]. Therefore, it can be seen that this research is one of the firsts to use GMM in analyzing the impact of FDI in the tourism industry on economic growth or tourism development of the host country. This is important to guide the governments with regards to the way they should administer policies and strategies around FDI in the tourism industry. There is a research which concluded that careful analyses should be done prior to attracting FDI in tourism within the overall development strategies [43].

GMM estimator itself can be applied to time series data, cross-sectional data and panel data [44]. It is a statistical methodology which combines observed economic data and information in population moment conditions in order to create estimates of the unknown parameters of the economic model [45]. GMM was introduced by Lars Peter Hansen in early eighties in the form which was practically useful for researchers and flexible since many unrealistic assumptions which existed in previous methodologies were no longer required [46]. Since then many scholars have chosen to adopt this methodology for their empirical research.

There are 3 hindrances which are overcome by the use of GMM. These 3 are the endogeneity problem, omitted variables and measurement errors [7]. GMM relaxes assumptions which are unreal and is especially useful in this case when dealing with the endogeneity problem of reverse causality. The main reason why GMM estimator is used in this research is due to reverse causality which exists between tourism related FDI and economic growth or tourism development. As proven by many researchers in this area, a bi-directional relationship exists between these variables. Furthermore, strict assumption applied in OLS whereby explanatory variables should not correlate with error term is not applicable in this case. GMM is also suitable for cases with small T large N samples [47].

There are 2 commonly used GMM estimators, which are difference GMM developed by [48] and system GMM by [49-50]. Although difference GMM was created to overcome endogeneity problem, however it may result in inefficient estimates when lagged dependent variable is included as one of the independent variables [7] as is the case in this research. Therefore system GMM is used for data analysis as it was developed to overcome the problems that might arise from using difference GMM. This research also incorporates other supporting variables such as human capital and trade openness which have been proven to help aggregate FDI exert a positive effect on economic growth [18, 20]. It is important to know what are the factors which help realize the benefits of tourism-related FDI on economic growth since tourism

related FDI, similar to aggregate FDI might not exert a significant impact on economic growth without the existence of sufficient absorptive capacities in the host country. Therefore these variables should also be taken into account in this case.

Here are the equations which are going to be tested in this paper:

$$Y_{it} = \alpha + \beta_1 Y_{it-1} + \beta_2 FDI_{it} + \beta_3 HC_{it} + \beta_4 TRADE_{it} + \beta_5 X_{it} + \varepsilon_{it} \quad (1)$$

$$Y_{it} = \alpha + \beta_1 Y_{it-1} + \beta_2 FDI_{it} + \beta_3 HC_{it} + \beta_4 TRADE_{it} + \beta_5 FDI \cdot HC_{it} + \beta_6 X_{it} + \varepsilon_{it} \quad (2)$$

$$Y_{it} = \alpha + \beta_1 Y_{it-1} + \beta_2 FDI_{it} + \beta_3 HC_{it} + \beta_4 TRADE_{it} + \beta_5 FDI \cdot TR_{it} + \beta_6 X_{it} + \varepsilon_{it} \quad (3)$$

Where  $Y_{it}$  stands for economic growth, in this case represented by real GDP growth. Subscripts  $i$  denotes each country and  $t$  denotes the time dimension, in this case every year.  $\alpha$  is a constant or the intercept.  $\beta$  is the corresponding coefficient of the independent variables.  $FDI$  represents the tourism-related foreign direct investment.  $HC$  is human capital or the level of educational attainment.  $TRADE$  is representation of openness to trade which is an important factor in FDI growth nexus similar to human capital.  $X$  includes explanatory variables which are normally used in cross-country growth analysis.  $FDI \cdot HC$  is the interaction term of tourism-related FDI and human capital, while  $FDI \cdot TR$  is the interaction term of tourism-related FDI and trade openness. Lastly,  $\varepsilon$  is the idiosyncratic error term.

Another model which is also tested in this research is shown below:

$$TGDP_{it} = \alpha + \beta_1 FDI_{it} + \beta_2 HC_{it} + \beta_3 TRADE_{it} + \beta_4 X_{it} + \varepsilon_{it} \quad (4)$$

This model intends to study the relationship between tourism related FDI and tourism contribution to GDP. This relationship is also important to be analyzed since the impact of tourism-related FDI might not be large enough to affect the whole country's economy but it should at least affect tourism contribution to the economy. These two economic models are going to be tested using the system GMM estimator.

The data which are used in this research include panel data of 18 Organisation for Economic Co-operation and Development (OECD) countries over 8 years period of time from 1994 to 2012. These 18 countries are Austria, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Luxembourg, Mexico, Netherlands, Poland, Slovakia, South Korea, Spain, Turkey and the United States. Data of FDI by sector is rather scarce, thus the number of cross-sectional and time-series data available for analysis is limited. Tourism-related FDI is proxied by FDI in hotels and restaurants [32, 51]. The data are taken from OECD. Economic growth ( $Y$ ) is represented by real GDP growth collected from [52]. The proxy used for human capital ( $HC$ ) is



average years of education or educational attainment of 15-24 years old also taken from [52]. Trade openness (TRADE) is the sum of exports and imports divided by GDP [7, 11, 18, 23]. Data on exports, imports and GDP which are used for calculation of trade openness indicator are collected from OECD. Data on tourism contribution to GDP (TGDP) is taken from the World Travel & Tourism Council (WTTC).

Other data which are used to proxy for growth determinant factors in cross-country analysis are all taken from [52] except inflation which was taken from OECD. These explanatory variables include inflation (INFL) to proxy for macroeconomic stability, mobile cellular subscriptions per 100 people (INFR) to proxy for infrastructure and population growth (POP). These variables are indicated by X in the previously introduced equations.

#### IV. MATERIALS AND METHODS

The summary statistics for these variables are shown below in Table 1.

Table.1: Summary Statistics of Dependent and Independent Variables

Variables	Proxy	Source	Mean	Std. Dev.	Min	Max
FDIT	Inward FDI in hotels and restaurants (millions USD)	OECD	230.14	3126.08	-23,272	27,343
Y	Real GDP Growth	Teorell, <i>et al</i>	1.90	4.10	-14.72	11.11
HC	Average educational attainment of 15-24 years	Teorell, <i>et al</i>	11.76	1.14	8.61	13.84
TRADE	Sum of imports and exports over GDP	OECD	0.95	0.80	0.26	4.20
INFL	Inflation rate	OECD	3.12	2.01	-0.36	10.44
INFR	Mobile cellular subscriptions (per 100 people)	Teorell, <i>et al</i>	111.55	24.61	42.56	172.32
POP	Population growth	Teorell, <i>et al</i>	0.50	0.66	-1.85	2.40
TGDP	Tourism contribution to GDP	WTTC	3.41	1.46	1.63	7.01

As mentioned in the previous section, system GMM is going to be used to analyze these data according to equation (1), (2), (3) and (4). The inclusion of instrumental variables is one of the most important parts of GMM as these instrumental variables are the key to overcome the endogeneity problem. As regressors and error term correlate, instrumental variables are introduced to ensure that the regression result is not biased. However, this holds true only when the instrumental variables used are exogenous. In the case of system GMM, it is common to use lagged endogenous variables minimum by two periods as instrument variables. It is difficult to find appropriate external instruments, subsequently these instruments can be drawn from within the dataset [47]. Twice lag and above can be used since it is natural for  $X_{i,t-1}$  to be instrumented by  $X_{i,t-2}$  cause  $X_{i,t-2}$  is related

to  $X_{i,t-1}$  but not the error term as long as the error term is not serially correlated. Therefore endogenous variables lagged by two periods are used as instrumental variables in this case [42, 47]. However lagged values might be weak instruments if the prerequisites are not fulfilled, therefore there are two most widely used tests for instrumental variables to make sure that they are valid or that they are exogenous. These tests are Sargan and Hansen test [53-54]. Then again, Sargan test is inconsistent in robust GMM while Hansen test stays consistent [47]. Consequently, the result of the Hansen test of overidentifying restrictions is reported in this case. The system GMM results of all 4 equations are summed up in table 2, which is shown below. These results were calculated using `xtabond2` command in STATA 12 [47].

Table.2: Results of System GMM Estimators

Explanatory Variables	Dependent Variable: Y			Dependent Variable: TGDP
	(1)	(2)	(3)	(4)
<b>L.Y</b>	-.1646133 (.1213647)	-.0788524 (.1756059)	-.1637397 (.1418507)	
<b>FDIT</b>	.000137 (.0001125)	-.0118564 (.0114886)	.0001306 (.0003267)	-.0000905** (.0000237)
<b>HC</b>	.5248518 (1.975131)	-.1939754 (2.030963)	.5249426 (1.982168)	-.6695794* (.3208431)
<b>TRADE</b>	9.686857* (4.405844)	8.844215 (4.408282)	9.681559* (4.592384)	-1.358687* (.6494347)
<b>INFL</b>	1.756368** (.4333616)	1.544185** (.5245603)	1.755747** (.4458135)	-.4019304** (.1319537)
<b>INFR</b>	-.2797529* (.0982477)	-.2502322* (.0930645)	-.2796262* (.1012219)	.016763 (.0096647)
<b>POP</b>	-9.91398* (4.196383)	-9.909334* (4.070243)	-9.9122* (4.244097)	-3.279637 (.5325412)
<b>FDITHC</b>		.0010843 (.00104)		
<b>FDITTR</b>			0.00000432 (.0001729)	
<b>Constant</b>	18.06649 (22.16305)	24.3189 (22.91164)		12.17242** (3.515853)
<b>AR (1)</b>	0.170	0.130	0.164	0.060
<b>AR (2)</b>	0.096	0.164	0.093	0.155
<b>Hansen Test</b>	0.454	0.506	0.400	0.398

Heteroscedasticity-consistent standard errors in parantheses, \*\* denotes significant at 0.01 confidence level, \* denotes significant at 5% confidence level.

The reported Hansen test above shows that it accepts the null hypothesis which suggests that the instruments are exogenous [55]. AR(1) and AR (2) in first differences are tests for autocorrelations where the null hypothesis is that there is no autocorrelation [55] and in this case, the null hypotheses are accepted for both AR (1) and AR (2). Thus the results obtained above passed all necessary tests and are robust.

The results obtained are very interesting. First of all, FDIT or tourism-related FDI has no significant effect on economic growth in any of the equations. FDIT only significantly affects tourism contribution to GDP but not economic growth. Its effect on tourism contribution to GDP is also negative and very small. This result is supported by previous findings [29-31] whereby FDI in the service sector or non-manufacturing sector has no effect on economic growth. Therefore governments should be cautious in formulating their strategies with regards to FDI. They should not waste resources or form unfavorable policies for the sake of attracting more inward FDI in the tourism industry.

A plausible explanation for this result is if the tourism industry does not provide a significant contribution to the host country's economy, thus FDI into the tourism sector

does not affect the growth of the whole economy. Therefore, equation (4) was included in the analysis. As it can be seen, even when looking at the impact of tourism-related FDI on tourism contribution to GDP instead of economic growth, the effect is still very low and negative although significant at 1% level of confidence. This should pose serious consideration for governments in their view towards encouraging inward FDI in tourism industry since it might not induce growth of its tourism industry but inhibit it instead.

Furthermore, although literature in aggregate FDI suggested that human capital and trade openness are important in realizing the benefits of FDI for the economy of the host country, however in this case, the interaction of FDIT and human capital in equation (2) and interaction of FDIT and trade openness in equation (3) show no significant results. These results both support and oppose the findings of previous research as their results showed that human capital is not an appropriate absorptive capacity but trade openness is [26]. These results also support [28] where his empirical research concluded that human capital does not help in realizing the positive growth effect of FDI in the primary and service sector.

Another interesting point is that human capital does not significantly affect economic growth in itself. A possible explanation for this result is due to the relatively high level of educational attainment of the countries included in the analysis, therefore the differences in human capital no longer explain differences in economic growth since the level of human capital does not vary and stays stable at a high level. Similar to FDIT, the effect of human capital is only significant in equation (4) where the dependent variable is tourism contribution to GDP. Interestingly the coefficient is negative and quite high. This might be due to the fact that tourism industry requires less expertise or specialized knowledge, therefore when human capital is high, more people tend to move away from the tourism industry to other industries such as manufacturing which requires higher knowledge and technical expertise, making the contribution of tourism to GDP lower.

Trade openness, inflation and infrastructure are always significant in all equations although they are significant at different level of confidence. With regards to trade openness, the coefficients are all positive in economic growth equations as expected, however it is negative in the last equation. Trade openness most likely encourages other industries more compare to the tourism industry, thus the contribution of tourism to overall GDP becomes lower as other industries dominate the GDP. Similarly, inflation is also only negative in relation to TGDP since tourists tend to look for cheap destinations, therefore it is logical that higher inflation which causes products to be more expensive is negatively related to tourism contribution to GDP. On the other hand, infrastructure is only positively related to TGDP while it is always negatively related to economic growth. It is natural that there are more tourists with better infrastructure. [7] used the same proxy for infrastructure, which is mobile cellular subscription per 100 people and obtained a similar result. Infrastructure negatively affects economic growth in the short-run (annual data) but it is positive in the long run (5 years average data). Since this research only use annual data, therefore the long run relationship cannot be determined. However, as the proxy, method (system GMM) and the short-run result of [7] were all similar to this research, it is expected that infrastructure should also positively affect economic growth in the long run as proven by [7].

Concerning population growth, its effect is significant on economic growth but not on tourism contribution to GDP. The coefficients are negative in all equations which mean that higher population growth results to lower economic growth. [3, 23-24] also acquired similar results in regards to population growth. Its effect on TGDP is insignificant which is reasonable since tourists do not necessarily put host country's population into

consideration when deciding on which tourist destination to visit.

Overall, the results obtained in this research showed both expected as well as unexpected results. Most of the control variables or common explanatory variables in growth models showed significant influence on economic growth. However, the main independent variable in this research which is tourism-related FDI does not show any significant result on economic growth. This is in line with many previous literature which suggest that the effect of FDI on economic growth is ambiguous or non-existent in the service sector or non-manufacturing sector.

## V. CONCLUSION

This research uses system GMM which caters for endogeneity problem to confirm that FDI in tourism industry does not significantly affect economic growth and even negatively affects tourism contribution to GDP. The effect of FDI on the tourism industry on economic growth is also not accelerated by human capital nor trade openness. This suggests that the government, specifically ministry of tourism should not be rash or jump to conclusions in the decision of encouraging inward FDI in the tourism industry. This suggests that careful attention should be paid to the actual benefits of FDI in different industries, particularly the service industry.

There are still large gaps to be filled by future scholars. First of all, future research should tackle several limitations of this paper, such as limited number of observations, lack of external instrumental variables and imbalance number of developed and developing countries. Deeper studies regarding FDI in the tourism industry as well as other specific industries should be carried out to find out the true benefits of FDI for the recipient country despite the commonly believed advantages of FDI. There should also be further research to find out the appropriate absorptive capacities of FDI in the tourism industry. Absorptive capacities such as human capital and trade openness which are proven to work for aggregate FDI do not work for tourism-related FDI. Therefore, it is crucial to discover absorptive capacities specific to tourism FDI. This will definitely help the ministry of tourism and local authorities to focus and properly distribute their resources to those factors which are proven to help realize the benefits of tourism FDI on economic growth of the host country.

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